GRAMOLIN, I.V., inzh.; PAVLOV, S.S., inzh.

Scientific and technical collaboration of socialist countries.
Transp. stroi. 12 no.8:39-40 Ag '62. (MIRA 15:9)
(Transportation)

GRAMOLIN, I.V., inzh.; PAVLOV, S.S., inzh.

Mooring made of precast reinforced concrete (from "Civil Engineering and Public Works Review," no.10, 1961). Transp. stroi. 12 no.9:56-57 S '62. (MIRA 16:2)
(Great Britain--Docks)
(Great Britain--Precast concrete construction)

2856 Gramolin, L. V.

Issledovanie raboty vedushikh koles samokhodnogo kombayna S-4. M., 1954.
19 s. s chert. 21 sm. (M-vo vyssh. obrazovaniya SSSR. Mosk. in-t mekhanizatsii i elektrifikatsii sel'skogo khozyaystva im. V. M. Molotova). 110 Exz.
Bespl. - (54-55760)

GRAMOLIN, L. V.

"Investigation of the Operation of the Driving Wheels in a Self-Propelled C-4 Combine." Cand Tech Sci, Moscow Inst of Mechanization and Electrification of Agriculture, Min Higher Education USSR, Moscow, 1954. (KL, No 2, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

SOV/124-58-8-9239

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 8, p 129 (USSR)

AUTHOR: Gramolin, L.V.

TITLE: The Influence Exerted by External Factors on the Resistance to Rolling of a Pneumatic-tired Wheel (Vliyaniye vneshnikh faktorov na soprotivleniye kacheniyu pnevmaticheskogo kolesa)

PERIODICAL: Tr. Latv. s.-kh. akad., 1957, Nr 6, pp 151-159

ABSTRACT: Bibliographic entry

Card 1/1

KABAKCHI, A. M., GRAMOLIN, V. A., and YEROKHIN, V. M.

"Several Facts Concerning the Effects of Ionizing Radiation on Concentrated Water Solutions of Inorganic Salts" p.51

Trudy Transactions of the First Conference on Radioaction Chemistry, Moscow, Izd-vo AN SSSR, 1958. 330pp.
Conference -25-30 March 1957, Moscow

AUTHORS: Kabakchi, A.M., Gramolin, V.A. (Moscow) 74-27-4-4/8

TITLE: Chemical Methods of the Dosimetry of Ionizing Radiations (Khimicheskiye metody dozimetrii ioniziruyushchikh izlucheniy)

PERIODICAL: Uspekhi Khimii, 1958, Vol. 27, Nr 4, pp. 459-480 (USSR)

ABSTRACT: By way of introduction a short survey is given of the initial stages attained in the field of radiation dosimetry. Since 1945 problems of dosimetry have been attaining considerable importance, especially with respect to chemical methods of dosimetry. There follows a discussion of the results obtained by the international commission for radiological units. The second chapter of the report deals with the definition of γ-rays and fast electrons. Fricke and Morse (Ref 3,4) recommended ferrous oxide solution with sulfuric acid for the purpose of determining the dose 4.10^{-5} M. Miller, Weiss, Rigg, Stein (Ref 21-25) and Hardwick (Ref 26) gave a precise explanation of the data supplied by Morse and Fricke. A special chapter of the report deals with the determination of the doses of γ-radiation and fast electrons (10^5 erg/g): Glasses as dosimetric systems: Shulman, Ginter, Klick Rabin (Ref 73) and Davisson, Goldblith, Proctor (Ref 74) showed that an optical

Card 1/3

density in metaphosphate glasses, which contain additions of silver, is connected with the linear dependence on the radiation dosage if the latter does not exceed 6.10^{7} erg/g. Kreidl, (Ref 75) found that the color of irradiated glasses which contain 0.5% cobalt oxide is more resistant than coloring with an addition of silver. Furthermore, plastics are discussed with respect to X- and γ-ray dosages. Interesting results were obtained by Birnbaum, Shulman and Seren (Ref 81) in the course of experiments carried out with melamine. Besides liquid and solid substances also gaseous substances have recently been used for the determination of radiation doses (X- and Gamma-rays). The third chapter deals exclusively with the determination of radiation dosages (from 4650 to 56000 erg/g) by chemical methods: halide hydrocarbon derivatives. Reference is made to Schulte, Sattle, Wilhelin (Ref 87) who proved that by the irradiation of chloroform in the absence of air small quantities of hexachloroethane and hydrogen chloride are formed. In contact with air hydrogen, free chlorine, and a peroxide compound are formed. Mus' "atometer" (Ref 88,89) was discussed as well as the work by Kanwischer (Ref 90) and those by Taplin and Douglas (Ref 91), by Johnson, Schwartz and Hamilton (Ref 97). The use of alkaline halide crystals is specially

mentioned. The last chapter deals with the determination of currents of thermal neutrons and fast neutrons. Mention is made of the works by Bone-Mayry (Ref 116), the statements made by Ehrenberg and Saeland (Ref 118), the suggestions made by Harteck and Dondes (Ref 83), the data supplied by Barr, Schuler, Hart, Ramler, Rocklin (Ref 50,122) and by McLonnel and Hart (Ref 119). There are 1 figure, 2 tables, and 122 references, 19 of which are Soviet.

1. Radiation--Dosage determination

Card 3/3

SOV/76-32-9-31/46

AUTHORS: Kabakchi, A. M., Gramolin, V. A., Yerokhin, V. M. (Moscow)

TITLE: The Effect of Ionizing Radiation on Aqueous Potassium Nitrate Solutions (Deystviye ioniziruyushchikh izlucheniy na vodnyye rastvory azotnokislogo kaliya)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 9, pp 2149-2154 (USSR)

ABSTRACT: The authors investigated the effect of γ-radiation from Co^{60}, β-radiation from P^{32}, and α-radiation from Pu^{239} upon aqueous potassium nitrate solutions. The concentration of these solutions ranges from 0,01 m to 2 m (just below the limit of solubility). The pH value of each solution was measured with a LP -5 potentiometer with glass electrode. The nitrite concentration was determined in the FEK-M photoelectric colorimeter using the reagent of Griss. The results are given in two diagrams and a small table. The nitrite concentration depends primarily on the concentration of the nitrate and changes little with changes in the ionization density. The work was guided by Professor N. A. Bakh, S. V. Belov, and

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The Effect of Ionizing Radiation on Aqueous Potassium Nitrate Solutions SOV/76-32-9-31/46

V. S. Shevyrev.

There are 2 figures, 1 table, and 18 references, 9 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR Institut fizicheskoy khimii (AS USSR, Institute of Physical Chemistry)

SUBMITTED: April 18, 1957

Card 2/2

S/844/62/000/000/025/129
D244/D307

AUTHORS: Cheburkov, O. F., Malakhov, K. V., Gramolin, V. A. and Kabakchi, A. M.

TITLE: Influence of the variation of the quantity $-\frac{dE}{dx}$ on the yield of nitrate ion on aqueous nitrate solutions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 159-161

TEXT: The authors investigated the effect of decreasing $-\frac{dE}{dx}$ of the applied radiation on the yield of nitrite in nitrate solutions. Solutions containing 0.01 - 6.0 g - ets/1 $NaNO_3$ and Griss reagent were irradiated by γ rays from a Co^{60} source, 14.1 Mev neutrons and α-particles from Pu^{239}. It was established that in dilute solutions of $NaNO_3$ (0.01 M) the yield of NO_2^- depends strongly on quantity $-\frac{dE}{dx}$. In 0.1 and 1.0 M solutions the yields for the various methods

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of irradiation did not differ markedly from each other. It is indicated that the formation of NO_2^- in concentrated $NaNO_3$ solutions depends on: 1) interaction of the dissolved material with the products of radiolysis of water, 2) participation of the excited solvent molecules in the reaction according to equations $H_2O^* + NO_3^- \longrightarrow NO_3^* + H_2O$; $(NO_3^-)^* + H_2O \longrightarrow NO_2^- + H_2O_2$ and 3) direct action of the radiation on the system. There is 1 table.

USSR/Cultivated Plants - Fruits. Berries. ..

Abs Jour : Ref Zhur - Biol., No 10, 1958, 44297

Author : Gramolin, V.K.
Inst : -
Title : Formation and Growth of New Roots in the Apple Tree After Planting.

Orig Pub : Sad i ogorod, 1957, No 5, 49-51.

Abstract : The problem of fall and spring planting of the Jonathan apple tree was studied in Kuban in 1951-1953. The quantity and the length of grown roots was calculated for different periods of time. In the seedlings planted in fall (October 16) and in spring (April 15), the aggregate length of new roots during the vegetation period comprised 5569 and 3906 cm respectively. The aggregate depth of the penetration of all

Card 1/2

USSR/Cultivated Plants - Fruits. Berries. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82495

Author : Gramolin, V.K.

Inst :

Title : Influence of Planting Periods on the Growth and Development of Apple Tree-Saplings.

Orig Pub : Vestn. s.-kh. nauki, 1957, No 8, 89-94

Abstract : Results are cited of the three-year experiment at the Department of Fruit Growing of Kubanskiy Institute of Agriculture (Krasnodar) with the protracted periods of planting Borovinka and Jonathan apple trees. Under the conditions of Prokuban'ye, the best periods of apple tree planting should be considered the early autumn (from the 16 of October to the 6 November) and winter periods in years of a mild winter (from the second half of February and in March). These planting periods secure better ability to take root, a more intensive growth

Card 1/2

Abs Jour : Ref Zhur Biol., No 18, 1958, 82495

of the shoots in the first half of the summer (by 2½-11 times) and a higher (by 2-3 times) concentration of sugars in the woody part and the roots compared with the April plantings. Leaving the crown without pruning at planting produced negative effect. The best length of the roots at planting is 40-50 centimeters. -- A.Ch. Kelli

GRAMOLIN, V.K.

GRAMOLIN, V.K., agronom.

When to plant apple trees in the Kuban. Nauka i pered. op. v sel'-khoz. 7 no.10:57-59 O '57. (MLRA 10:11)
(Kuban--Apple)

GRAMOLIN, V.K., Cand Agr[redacted] Sci —(diss) " ~~The most favorable~~ Optimum periods for planting apple trees under ~~the~~ conditions of ~~the~~ Pri-Kubanskiy Rayon of ~~the~~ Krasnodarskiy Kray". Krasnodar, 1958, 11 pp, (Min of Agr~~iculture~~ USSR. Kuban' Agr[redacted]l Inst~~itute~~). 150 copies. (KL, 38-58, 106).

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GRAMOLIN, V.K.

When to plant apple trees in the southern U.S.S.R. Agrobiologiia no.2:289-291 Mr-Ap '61. (MIRA 14:3)

1. Kurskaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Apple)

GRAMOLIN, V.K.

Winter planting of apple trees. Agrobiologiia no.3:445-447 My-Je '62. (MIRA 15:10)

1. Kurskaya sel'skokhozyaystvennaya opytnaya stantsiya.
(KUBAN--APPLE) (KUBAN--TREE PLANTING)

GRAMOTENKO, P. M.

"Grape Hybrids of the Don Variety, Pukhlyakovskiy." Cand Biol Sci, Rostov State U imeni V. M. Molotov, Min Higher Education USSR, Rostov-on-Don, 1955. (KL, No 15, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

USSR/Cultivated Plants. Fruit Trees. Small Fruit Plants. M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77868.

Author : Gramotenko, P.M.
Inst. : Scientific-Research Institute of Vineyards and Viticulture.
Title : Increase of Harvest ofGrape Varieties by the Method of Clone Selection.

Orig Pub: Byull nauchno-tekhn. inform. N.-i. inta vinogradarstva i vinodeliya, 1957, No 3, 64-67.

Abstract: In the Scientific-Research Institute of Vineyards and Viticulture, a study was conducted in 1951-1956 of a series of grape varieties with the purpose of separating harvested clones. In part of the separated clones, some distinguishing mor-

Card : 1/3

USSR/Cultivated Plants. Fruit Trees. Small Fruit Plants. M

APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000516520011-0

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77868.

phological features were noted which correlate with high or low harvests. Several such clones are described, the harvest of which was checked on the mother shrubs as well as from the vegetatively-bred progeny. In the isolated clone of the Mal'bek variety with green leaves, the general weight of the harvest from the shrub proved to be significantly higher than from the basic shrubs of the variety with red leaves. The harvested clone of the Mal'bek can be easily isolated in the autumn according to the green color of the leaves. The harvest of the separated clone-mixtures of the variety Kokur white was for 2 years on the average 27 c/ha higher than that of the basic variety. Clones negative in economic respects

Card : 2/3

POTAPENKO, Ya.I.; LUK'YANOV, A.D.; LAZAREVSKIY, M.A.; DYUZHEV, P.K.; ZAKHAROVA, Ye.I.; KOVALEV, A.A.; RUZAYEV, K.S.; NECHAYEV, L.N.; BASAN'KO, A.A.; MASHINSKAYA, L.P.; ALIYEV, A.M.; MANOKHIN, P.A.; LITVINOV, P.I.; KOROTKOVA, P.I.; ZAYTSEVA, Yu.F.; GRAMOTENKO, P.M.; TAIROVA, V.N., red.; PROKOF'YEVA, L.N., tekhn.red.

[Viticulture] Vinogradarstvo. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 612 p. (MIRA 14:1)

(Viticulture)

GRAMOVA, Ye.N.

"Changes in the nucleic acid content in relation to the age of Bursaria truncatella.: Uch.zap.Ped. inst. Gerts., 70, 1948.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

GRAMOVICH, Ivan [Hramovich, I.]

To make us happy. Rab. i sial. 35 no.12:7 D '59 (MIRA 13:3)
(Lyn'kou, Mikhas', 1899-)

GRAMOVSCHI, I., ing.; TRIF, V., ing.

Achievements and prospects for enlargement of the assortments and possibilities of manufacturing other mining equipment at the Baia Mare Mechanial Plant for Machines and Mining Equipment. Rev min 12 no.5:205-206 My '61.

GRAMP, Aleksandr Nikolayevich; SOLOV'YEVA, N.P., red.; KLEYMAN, L.G., tekhn.red.

[Consolidated transportation system in the U.S.S.R.; lecture for students of the second course in all specialities] Edinaia transportnaia set' SSSR; lektsiia dlia studentov II kursa vsekh spetsial'nostei. Moskva, M-vo putei soobshcheniia. Vses. zaochnyi in-t inzhenerov zhel-dor.transporta, 1959. 32 p. (MIRA 13:4)

(Transportation)

ZHAVORONKOV, I.I. [translator]; NEMUKHIN, V.P. [translator]; GRAMP, A.N. [translator]; SHTEYNBERG, A.D. [translator]; MADEYEVA, R.I. [translator]; KARPUSHINA, I.M. [translator]; PEYSAKHZON, B.E., kand.tekhn.nauk, otv.red.; VERINA, G.P., tekhn.red.

[World railroads; survey of the operation and equipment of railroads throughout the world] Zheleznye dorogi mira; obzor ekspluatatsionnoi raboty i tekhnicheskogo osnashcheniia zheleznykh dorog mira. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 587 p. (MIRA 13:2)

(Railroads)

S/094/61/000/001/003/007
E073/E335

AUTHORS: Pan'kov, N.I., Gramshpul', E.A., Gorelik, V.I., Kislov, B.A. and Zotin, P.Ye.

TITLE: Electrolyser for a Ternary Alloy

PERIODICAL: Promyshlennaya energetika, 1961, No. 1, p. 15

TEXT: In one of the plants producing a ternary alloy, carbon electrodes of 400 x 400 x 550 mm were used. For a loading of 12 000 A the current density at the cathode surface was 0.282 A/cm^2 and at the anode surface it was 1.25 A/cm^2. During the gradual burning-off of the carbon anodes fragments of the carbon and the ash dropped off, which formed a sludge and screened a part of the liquid surface of the lead cathode, leading to a sharp decrease in yield. Furthermore, the arrangement of the anodes in the electrolyser was such that the current density at the cathode surface was highly non-uniform, which led to local overheating and a reduction in output. To eliminate these drawbacks, the authors proposed

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S/094/61/000/001/003/007
E073/E535

Electrolyser for a Ternary Alloy

substitution of the carbon electrodes by graphite blocks of 300 x 400 x 800 mm. Fragments did not fall off the graphite and thus sludge formation was prevented. In spite of the fact that the current density remained the same, 12 000 A, as for carbon anodes, the current intensity in the case of graphite anodes is distributed more uniformly and consequently the cathode surface of the electrolyser is utilised more efficiently (see sketches). Practical introduction of the proposal of the authors (for which third prize was awarded in the Fifteenth All-Union Competition on Saving Energy) led to the following results.

1) The output of the electrolyser increased from 1200-1300 to 1500-1600 kg/day.
2) The current efficiency increased from 52-55 to 58-62%.
3) The specific electricity consumption decreased from 1650 to 1600 kWh/ton.

The resulting annual saving in electricity for the work

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S/094/61/000/001/003/007
E073/E335

Electrolyser for a Ternary Alloy

under consideration was 1 035 000 kWh.
Note: this is a complete translation.

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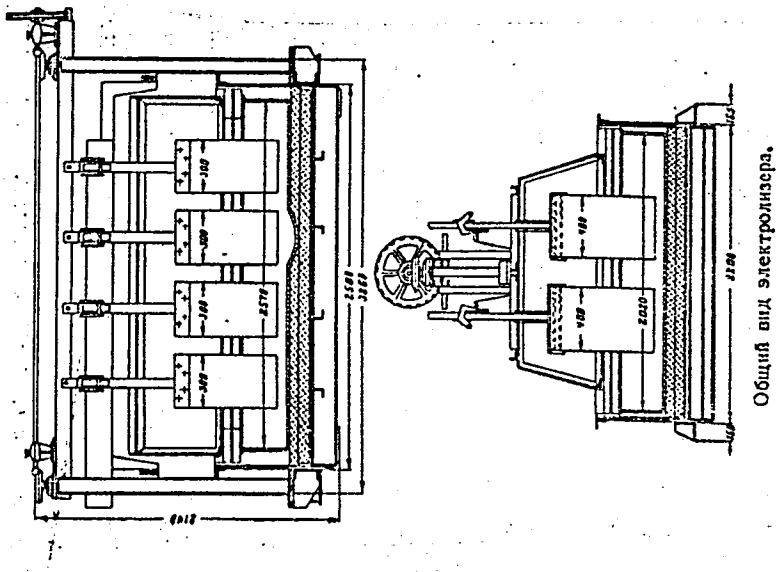
S/094/61/000/001/003/007
E073/E335

Electrolyser for a Ternary Alloy

Fig:



Card 4/4

GRAMTIKOV, M.

Production of Poyvinyl Chloride Articles. LEKA PROMISHLENOST (LIght Industry) 4:40:April 55

GRANTSEV, S. K.

Fuel Abstracts
May 1954
Steam Raising
and Steam Engines

3790. RESISTANCE OF COOLING TOWER SPRAY DEVICES. Andrianov, V.E. and Grantsev, S.K. (Elekt. Sta. (Par Sta., Moscow), Oct. 1953, vol. 24, 21-24). Results are presented of wet and dry tests of various types of sprinkler, carried out on an experimental cooling tower in order to supplement existing information on the resistance of air movement in spray devices. B.E.A.

GHAMYKA, A.

The winner. Rab. i sial. 33 no.8:10-11 Ag '57. (MLRA 10:8)
(Buda-Koshelevka District--Dairying)

GRAMZIN, V.F., inzhener.

Combination ejector machine for small foundries. Lit.proizv. no.5: 27-28 My '56. (MLRA 9:8)
(Foundry machinery and supplies)

18 (5) SOV/128-59-11-9/24

AUTHOR: Gramzin, V.F., Engineer

TITLE: Mechanization of Hard Processes in Small Foundries

PERIODICAL: Liteynoye proizvodstvo, 1959, Nr 11, p 18 (USSR)

ABSTRACT: The shaking-out machines, Types G-2, G-3 and G-4, used in the small foundry of the Voronezh Plant, manufacturing equipment for concentration of ores, possess the following shortcomings: When shaking-out dry molds, they produce much dust which appears owing to the application of hammer-crushers required for loosening dry molding sand lumps; when shaking out wet molds, the sieves become quickly clogged. On the basis of experience, the Voronezh Plant established that the dust appearance can be considerably diminished if the hammer-crusher is removed and the sieve replaced by specially designed grate (Fig 1). The Moscow Plant "Borets" developed another installation which sucks the dust from the shaking-out grate and mechanically removes it (Fig 3). The author suggests that the

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Mechanization of Hard Processes in Small Foundries

NIILITMASh generalize the experience of a number of plants and help them develop the mechanization of hard processes in the foundry industry. There are 3 diagrams.

41153
S/169/62/000/009/036/120
D228/D307

9,6160

AUTHORS: Gran, B. V. and Mironov, V. S.

TITLE: Calculating the gravity acceleration's second vertical derivative from observations with a gravitation gradientometer

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 34, abstract 9A227 (In collection: Vopr. rudn. geofiz., no. 3, M., Gosgeoltekhizdat, 1961, 30-34)

TEXT: A formula is given for calculating the second vertical gravity derivative g_{zz} directly from the measured values of U_{xz} and U_{yz}:

$$g_{zz} = \frac{U_{xz}(-\rho_1) - U_{xz}(+\rho_1)}{2\rho_1} + \frac{U_{yz}(-\rho_2) - U_{yz}(+\rho_2)}{2\rho_2}$$

Card 1/2

GRAN, B.V.

Theory of the vertical torsion balance. Uch.zap.LGU no.303:278-287 '62. (MIRA 15:11)

(Gravity) (Torsion balance)

GRAN, B.V.

Measuring gravity vertical gradients. Vest.LGU 18 no.6:131-135 '63. (MIRA 16:4)

(Gravimetry)

BALASHOVA, E.L.; GRAN, B.V.

Review of investigations toward measuring the vertical gradient of gravity. Vop. razved. geofiz. no.3:142-149 '64. (MIRA 18:2)

GRAN, Jaroslav, inz.; KADLC, Zdenek, inz.

Concreting of the water reservoir vault on an inflatable formwork. Inz stavby 13 no.1:16-20 Ja '65.

1. Vojenske stavby, Brno (for Gran). 2. Research Institute of Engineering Construction, Bratislava, Worksite Brno (for Kadlc).

GRAN' N.I.

GRAN', N.I., inzh.

Furnace method of removing sulfur from cobalt. TSvet.met. 28 no.6:51-53 N-D '55. (MIRA 10:11)

1. Kombinat "Severonikel'."
(Cobalt) (Sulfur)

GRAN', N.I. Cand Tech Sci -- (diss) "Author's ~~report on~~ abstract of the dissertation paper presented in competition for the scientific degree of Candidate of Technical Sciences on the theme 'Certain ~~questions on~~ problems of non-fusion flux oxydation scavenging of the cobalt alloys'." Mos 1957, 7 pp. (Min of Higher Education USSR. Mos Inst of ~~xxxxxxxxxx~~ Nonferrous Metals and Gold im M.I. Kalinin. NTO of Nonferrous Metalurgy ~~of~~ at the "Severonikel'" combine of the Murmansk Sovnarkhoz)

150 copies (KL, 21-58, 90)

SOV/137-58-10-20755 D

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 58 (USSR)

AUTHOR: Gran', N.I.

TITLE: Some Problems of Fluxless Oxidizing Blow of Cobalt Alloy (Nekotoryye voprosy besfluysovoy okislitel'noy produvki kobal'-tovogo splava)

ABSTRACT: Bibliographic entry on the author's dissertation for the de-Candidate of Technical Sciences, presented to the Mosk. in-t tsvetn. met. i zolota, NTO tsvetn. metallurgii na k-te "Severonikel'" Murmanskogo sovnarkhoza (Moscow Institute for Nonferrous Metals and Gold, Scientific Technical Society for Nonferrous Metallurgy at the "Severonikel'" Kombinat, Murmansk Council of National Economy), Moscow, 1957

ASSOCIATION: Mosk. in-t tsvetn. met. i zolota, NTO tsvetn. metallurgii na k-te "Severonikel'" Murmanskogo sovnarkhoza (Moscow Institute for Nonferrous Metals and Gold, Scientific Technical Society for Nonferrous Metallurgy at the "Severonikel'" Kombinat, Murmansk Council of National Economy), Moscow

Card 1/1 1. Cobalt alloys--Processing 2. Cobalt alloys--Oxidation

AUTHOR: Gran', N.I. and Tseydler, A.A. 136-4-9/23

TITLE: Reaction between melt and slag in the systems Fe - Co - O and Fe - Ni - O. (Reaktsii mezhdu splavom i shlakom v sistemakh Fe - Co - O i Fe - Ni - O).

PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals) 1957, No.4, pp. 44 - 49 (U.S.S.R.)

ABSTRACT: Equilibrium determinations of the systems Fe + CoO ⇆ Co + FeO and Fe + NiO ⇆ Ni + FeO are described in this article. 25-kg charges of the alloys (Fe - Co, Fe - Ni) were melted in a magnesite crucible in a coreless induction furnace and oxidised by a stream of air (from the surface). The blowing was periodically stopped to enable alloy and slag samples to be taken. Alloy temperatures were measured directly before each sampling with a quartz-protected platinum/rhodium - platinum thermocouple, immersed for a short time. Mild steel subjected to additional refining by oxidation, type KO cobalt and electrolytic nickel were the experimental materials.

For the cobalt alloys the dependence of the slag composition on the alloy composition at a temperature of 1 514 - 1 526 °C and with a high cobalt oxide content in the wustite was studied together with the dependence of the equilibrium content on temperature. For the latter an alloy containing about 70% Fe

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Reaction between melt and slag in the systems Fe - Co - O and Fe - Ni - O. (Cont.) 136-4- 9/23

and 30% cobalt was used so as to reduce to a minimum the relative error of cobalt determinations in the slag. For the cobalt system the equilibrium was found to be related to temperature by the equation $\lg K = (4220/T) - 0.886$, the equation for the isobaric potential being $\Delta Z = -19311 + 4.054T$.

For the nickel system the dependence of the slag composition on the alloy composition at a temperature of 1 502 - 1 525 °C and the dependence of the equilibrium constant on temperature for the range 1516 - 1609 were studied, an alloy with 74.5 - 80.0% Ni being used for the latter. For this system, $\lg K = (6535.6/T) - 1.687$ and $\Delta Z = -29900 + 7.718T$.

For both systems the content of cobalt or nickel in the slag is determined by its content in the alloy at a constant temperature and on increasing the temperature the cobalt and nickel content in the slag rises (other conditions being equal.)

Graphs of $\lg K$ against $10^4/T$, of the percentage of cobalt or nickel in the slag against their respective contents in the alloy and of cobalt and nickel in the slag against Co/Fe and Ni/Fe, respectively, in the alloy are shown. Experimental compositions and equilibrium constant values are tabulated. There are 6 references, 3 of which are Slavic. 6 figs; 6 tables.

Card 2/2

AVAILABLE:

AUTHOR: None Given SOV/128-58-11-24/24

TITLE: Dissertations Presented for Obtaining Scientific Degrees (Dissertatsii predstavlennyye na soiskaniye uchenykh stepeney)

PERIODICAL: Liteynoye proizvodstvo, 1958, Nr 11, inside back cover (USSR)

ABSTRACT: The following dissertations were submitted. For the degree of Doctor of Technical Sciences: V.M. Zamoruyev (Institut metallurgii im. A.A. Baykova, AN SSSR - Institute of Metallurgy imeni A.A. Baykov, AS USSR) - Tungsten in Steel (Vol'fram v stali); A.M. Korol'kov (Institute of Metallurgy imeni A.A. Baykov AS USSR) - The Dependence of Casting Properties of Non-Ferrous Metal Alloys on Their Composition and the Form of Structural Diagram (Zavisimost' liteynykh svoystv splavov tsvetnykh metallov ot ikh sostava i vida diagramm sostoyaniya). For the degree of Candidate of Technical Sciences: V.V. Averin (Institute of Metallurgy imeni A.A. Baykov, AS USSR) - Solubility and Activity of Oxygen in Liquid Iron, Nickel, Cobalt and Their Alloys (Rastvorimost' i aktivnost' kisloroda v zhidkikh zheleze, nikele, kobal'te i ikh splavakh); B.V. Bauman (Moskovskiy institut stali im. I.V. Stalina - Moscow Institute of Steel imeni I.V.

Card 1/1

Dissertations Presented for Obtaining Scientific Degrees

Stalin) - The Effect of Nitrogen on the Structure and Mechanical Properties of Cast Iron (Vliyaniye azota na strukturu i mekhanicheskiye svoystva chuguna); G.M. Glinkov (Moscow Institute of Steel imeni I.V. Stalin) - Heat Absorbtion by the Bath of Open Hearth Furnaces as a Basis of Controlling the Thermal Process (Teplopogloshcheniye vanny martenovskoy pechi kak osnova regulirovaniya teplovoy raboty); N.I. Gran' (Moskovskiy institut tsvetnykh metallov i zolota im. M.I. Kalinina - Moscow Institute of Non-Ferrous Metals and Gold imeni M.I. Kalinin) - Some Problems of Fluxless Oxidizing Blowing-Through of Cobalt Alloys (Nekotoryye voprosy besflyusovoy okislitel'noy produvki kobal'tovogo splava); Du Tyn (Moscow Institute of Steel imeni I.V. Stalin) The Effect of Manganese on the Deoxidizing Capacity of Silicon in Liquid Iron (Vliyaniye margantsa na raskislitel'nuyu sposobnost' kremniya v zhidkom zheleze); Ye.I. Malinovskiy (Ural'skiy politekhnicheskiy institut im. S.M. Kirova - Ural Polytechnical Institute imeni S.M. Kirov) - Determination of Sources of Steel Contamination by Oxide Impurities During the Discharge and Casting of Steel (Ustanovleniye

GRAN', M.I.

Fluxless blowing through cobalt alloys. Biul. TSIIN tsvet. met. no. 11:18-23 '58. (MIRA 11:7)
(Cobalt alloys--Metallurgy)

GRAN', N.I.

Treatment of nickel and cobalt iron alloys by means of an oxidizing blow with formation of wustite slag. TSvet. met. 31 no. 7:40-44 Jl '58. (MIRA 11:8)

1. Kombinat Severonikel'.
(Nickel--Metallurgy)
(Cobalt--Metallurgy)
(Oxygen--Industrial applications)

GRAN', N.I.

Oxidizing blow of cobalt alloys without flux. Sbor. nauch. trud. GINTSVETMET no.15:91-110 '59. (MIRA 14:4)
(Cobalt alloys--Metallurgy)

32783
S/137/61/000/012/053/149
A006/A101

18.3100

AUTHOR: Gran', N. I.

TITLE: Some problems in oxidizing fluxless blowing through of cobalt alloys

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 40, abstract 120285 ("Sb. tr. Gos. n.-i. in-t tsvetn. met", 1959, no. 15, 91 - 110).

TEXT: The author investigated the effect of concentration of Cu, S and the temperature of the process on Co behavior, for the purpose of establishing optimum conditions for fluxless blowing on the industrial scale. The experimental methods were intended for surface oxidation without quartz flux of Co-alloys of different composition at a given temperature; the process was conducted in a magnesite crucible of a coreless induction furnace. A raise of temperature during fluxless blowing through of Co-alloys is not recommended, since the equilibrium is then shifted to a higher Co amount in the slag. At < 1,600°C the presence of silica somewhat increases Co transition into the slag. A reduced silica content in the slag, decreasing from 22 - 24 to 0.5%, causes the same increase in the Fe-Co ratio in the slag as a temperature drop of the process down to 250°C. In

Card 1/2

Some problems in oxidizing fluxless...

the concentration range investigated (up to 17.7% Cu in the alloy) the presence of Cu does not affect the distribution of Co between a sulfurless alloy and wustite slag. S promotes Co transition into the slag; the dependence of the coefficient of Co distribution on the product of Co and S concentrations in the alloy, at up to 4% S in the alloy (temperature 1,534°C), is described by the equation: $(Co)/[Co] = 0.0019[Co]\cdot[S] + 0.025$. The joint presence of S and Cu promotes Co transition from the alloy into the slag to a higher degree than S in the absence of Cu. There are 15 references.

G. Svedtseva

[Abstracter's note: Complete translation]

Card 2/2

GRANAT, N.L., inzh.

Movement of a free solid particle in a turbulent liquid flow.
Izv. VNIIG 65:63-75 '60. (MIRA 14:5)
(Dynamics of a particle)

GRAN', N.I.; MYL'NIKOV, Yu.S.; SUPRUNENKO, V.G.

Short network and power resources of an electric 20,000 kv.-a. smelting furnace. Prom.energ. 16 no.6:34-36 Je '61. (MIRA 15:1)
(Electric furnaces)

GRAN', N.I., kand.tekhn.nauk

Response to S.S. Babaev's article "Some problems of the electric smelting of sulfide ores." TSvet. met. 34 no. 4:74 Ap '61. (MIRA 14:4)

(Sulfides--Electrometallurgy)

SOV/136-59-2-10/24

AUTHORS: Gran', T.V., Trukhina, K.I. and Kulikova, N.N.

TITLE: Investigation of Cathodic-Nickel Dendrites (Issledovaniye dendritov katodnogo nikelya)

PERIODICAL: Tsvetnyye Metally, 1959, Nr 2, pp 46-49 (USSR)

ABSTRACT: One of the main defects of electrolytic nickel is the occurrence of dendrites in the form of surface protuberances (Fig 1). The authors report observations carried out at the Severonikel' Kombinat to elucidate their causes. The current density used was 217 A/m^2 with an inlet electrolyte containing 62, 35, 80 and 4 g/litre of nickel, chloride ion, sodium sulphate and boric acid respectively, negligible quantities of iron, cobalt and copper and a pH of 2.2 to 2.4. Metallographic investigation showed that the dendrites grow from centres of crystallisation formed by foreign matter adhering to the cathode (Fig 4 shows the microstructure of two centres). Dendrite formation over the whole cathode surface was found to be due to nickel ion deficiencies in the electrolyte layer at the cathode giving rise to coagulation of hydroxides to produce dendrite-formation centres: at the current density used a nickel

Card 1/2

Investigation of Cathodic-Nickel Dendrites

concentration in the cathode cell electrolyte of over 45 g/litre prevented mass formation of dendrites (Fig 5 shows the percentage of cathodes completely covered in dendrites as a function of cathode-cell nickel concentration). There are 5 figures and 3 Soviet references.

GRAN', T.V.

Cause of dendrite formation on cathodic nickel. TSvet. met. 33 no.7:32-39 Jl '60. (MIRA 13:7)
(Nickel--Electrometallurgy) (Metal crystals)

L 23870-65 FSS-2/EWT(1)/EWG(k)/EPF(c)/EEC(k)-2/EPF(n)-2/T-2/EED-2/FS(b) Pu-4 RWH /WW/MLK

NR: AT5002492 S/0000/64/000/000/0118/0123

AUTHOR: Gran', T.V.; Kheyfets, V.L.

TITLE: Electrolytic refining of nickel with a chloride electrolyte

Vsesoyuznyy seminar po prikladnoy elektrokhimii. 5th, Dnepropetrovsk, 1962.

Naukova dumka, 1964, 118-123

nickel refining, electrolytic refining, nickel chloride electrolysis, electrolytic nickel, polyvinyl chloride diaphragm

In order to develop a more efficient electrolyte for nickel than the sulfate– [illegible] nickel con- [illegible]

[illegible] current density. Each cell had a single [illegible] cathode of electrolytic [illegible] mm. thick, and two nickel anodes. [illegible] these cells to maintain a pH of 2.5 ± 0.3 and a temperature of [illegible]. The process was timed

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L 23870-65

ACCESSION NR: AT5002492

0

current density so as to deposit equal layers of metal. Two to four tests
each concentration and each current density in order to record averages.
Enclosure gives the results. Defects in nickel quality
the color of the metal deposited — blackening or black stripes appeared most frequently
when the current density exceeded the limit for each concentration. Fig. shows that
increasing the concentration actually increases the current density range at which good
quality deposits are obtained. On the basis of these advantages of nickel chloride
electrolytes, research was also carried out on the industrial technology of electrolytic
Extremely high nickel yields were obtained from solutions in the 98.4 - 100%
nickel concentration was raised from 55 to 134 g liter and the current
were electrolytically refined
99 - 3.94 % Cu, 2.29 - 2.49 % Fe and
the electrolyte
is kept clean enough, it produces nickel equalling N-1 cathode metal (GOST 849-56). Its
physical properties were tested and compared with those of nickel produced at other
current densities and with different chemical compositions. Nickel produced from

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L 23870-65

ACCESSION NR: AT5002492

chloride electrolytes appears to have a very promising industrial future. Orig. art. has: 5 figures, 6 tables and 1 formula.

ASSOCIATION: Gipronikel', Leningrad

SUBMITTED: 06Jul64 ENCL: 01 SUB CODE: MM

NO REF SOV: 011 OTHER: 004

Card 3/4

L 23870-65

ACCESSION NR: AT5002492

ENCLOSURE: 01

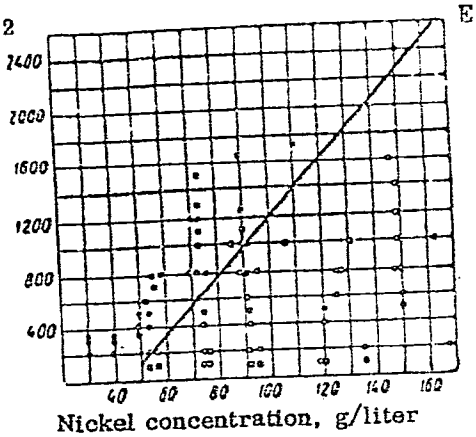

Fig. 1. Effect of nickel concentration and current density on the quality of cathode metal deposits: o - deposits without defects, ● - defective deposits

Card 4/4

ACC NR: AP7002577 (A, N) SOURCE CODE: UR/0413/66/000/023/0074/0074

INVENTOR: Gran', T.V.; Kolonina, N.P.; Kozich, Ye.S.

ORG: none

TITLE: Method for obtaining high-purity nickel by electrolytic refining. Class 40, No. 189154. [Announced by the Design and Scientific Research Institute of Gipronikel (Proektnyy: navchno-issledovatel'skiy institut "Gipronikel")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 74

TOPIC TAGS: nickel, ~~electrolytic refining~~, electrolytic refining, high purity ~~nickel~~ metal

ABSTRACT: This Author Certificate introduces a method of electrolytic refining of nickel distinguished by the use of black nickel hydrates for removal of arsenic, lead, and zinc from the electrolyte. To obtain high purity nickel containing less than 0.0001% zinc and to reduce the consumption of black nickel hydrates, zinc is removed from the electrolyte, prior to the introduction of black hydrates, by the ion-exchange process.

UDC: 669.243.87:66.067.85 [AZ]

SUB CODE: 11/ SUBM DATE: 18Mar65/ ATD PRESS: 5113

Card 1/1 UDC: none

GRAN, Ya. L.; SOKOLOV, Ye. M.

Sheep

Testing sodium amytal on sheep, Veterinariya, 29 No. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

GRAN, Ya.L., dotsent; KHURSHUDYANTS, R.S., dotsent

Edema of external sex organs in swine. Veterinariia no.12:38-39 D '63. (MIRA 17:2)

1. Stavropol'skiy sel'skokhozyaystvennyy institut.

45242-66 EWP(e)/EWT(m)/EWP(t)/ETI [illegible] JD/JG/AT/WH/JH

ACC NR: AR6025749 SOURCE CODE: UR/0058/66/000/004/A073/A073

AUTHOR: Gran, Yu. M.; Sabanova, L. D.

32
B

ORG: none

TITLE: Preparation of high-purity aluminum nitride

SOURCE: Ref. zh. Fizika, Abs. 4A616

REF SOURCE: Sb. Simpozium. Protsessy sinteza i rosta kristallov i plenok poluprovodnik. materialov, 1965. Tezisy dokl. Novosibirsk, 1965, 8

TOPIC TAGS: aluminum nitride, high purity aluminum nitride

ABSTRACT: A comparative evaluation is made of a number of methods for preparing high-purity aluminum nitride. A description is given of the method of preparing aluminum nitride in an electric arc, the equipment used, and the production conditions. The influence of various factors on the yield and quality of the product is studied. The authors also discuss methods for producing aluminum

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L 45242-66

ACC NR: AR6025749 O

nitride by vaporization of aluminum under vacuum followed by nitration and precipitation, as well as from diisobutylaluminumhydride. [Translation of abstract]
[DW]

SUB CODE: 07/

Card 2/2 LC

Granas, A. On local disconnection of Euclidean spaces.

Let F [illegible] $x \in F$ and for [illegible] on S_ε. For [illegible]

$$b_\varepsilon = \lim b_{\varepsilon'} \text{ and } b_\varepsilon(S_\varepsilon, F) = \lim b_{\varepsilon'}$$

The author [illegible] and by showing that [illegible] coincidence number which [illegible]

Granas, A. Über eine Klasse nichtlinearer Abbildungen in Banachschen Raumen. Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 867-871. (Russian. German summary)
The quasinorm of an (in general non-linear) operator

on a Banach space is defined as $|H|=\inf \sup (|Hx|/|x|)$ where the inf is taken over all positive numbers r and the sup is taken over all x in the Banach space such that $|x|\geq r$. An operator is quasibounded if its quasinorm is less than infinity. It is shown that if H (on a real Banach space to itself) is completely continuous and quasi-bounded and $|k||H|<1$ then the equation $y=x+kHx$ has at least one solution x for every y in the Banach space. This result is then applied to a class of nonlinear integral equations of the Hammerstein type. *D. C. Kleinecke.*

Concerning a Class of Nonlinear Operators in Banach Spaces

Granas, A. Über einen geometrischen Satz in Banachschen Räumen. Bull. Acad. Polon. Sci. Cl. III. 5 (1957), 873–877. (Russian. German summary)

The real Banach space X is the direct sum of two subspaces A and B, and P and Q are the projections of X onto A and B respectively. If F and G are completely continuous quasibounded [see preceding review] mappings from A and B into X, and $|F|\,|P|+|G|\,|Q|<1$, then the image of A under the mapping $I+F$ intersects the image of B under $I+G$. A condition is given for this intersection to consist of a single point. *D. C. Kleinecke.*

Concerning a Geometrical Law in Banach Spaces

GRANAS, A.

16(1) PHASE I BOOK EXPLOITATION SOV/2660

Vsesoyuznyy matematicheskiy s"yezd. 3rd, Moscow, 1956

Trudy. t. 4: Kratkoye soderzhaniye sektsionnykh dokladov. Doklady inostrannykh uchenykh (Transactions of the 3rd All-Union Mathematical Conference in Moscow. vol. 4: Summary of Sectional Reports. Reports of Foreign Scientists) Moscow, Izd-vo AN SSSR, 1959. 247 p. 2,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Matematicheskiy institut.

Tech. Ed.: G.N. Shevchenko; Editorial Board: A.A. Abramov, V.G. Boltyanskiy, A.M. Vasil'yev, B.V. Medvedev, A.D. Myshkis, S.M. Nikol'skiy (Resp. Ed.), A.G. Postnikov, Yu. V. Prokhorov, K.A. Rybnikov, P. L. Ul'yanov, V.A. Uspenskiy, N.G. Chetayev, G. Ye. Shilov, and A.I. Shirshov.

PURPOSE: This book is intended for mathematicians and physicists.

COVERAGE: The book is Volume IV of the Transactions of the Third All-Union Mathematical Conference, held in June and July 1956. The book is divided into two main parts. The first part contains summaries of the papers presented by Soviet scientists at the Conference that were not included in the first two volumes. The second part contains the text of reports submitted to the editor by non-Soviet scientists. In those cases when the non-Soviet scientist did not submit a copy of his paper to the editor, the title of the paper is cited and, if the paper was printed in a previous volume, reference is made to the appropriate volume. The papers, both Soviet and non-Soviet, cover various topics in number theory, algebra, differential and integral equations, function theory, functional analysis, probability theory, topology, mathematical problems of mechanics and physics, computational mathematics, mathematical logic and the foundations of mathematics, and the history of mathematics.

Card 31/34

GRANAS, A. (Torun)

On the disconnection of Banach spaces. Fund mat 48 no.2:189-200 '60. (EEAI 10:1)
(Spaces, Generalized)

GRANAS, A.

An extension to functional spaces of Borsuk-Ulam theorem on antipodes. Bul Ac Pol mat 10 no.2:81-86 '62.

1. Institute of Mathematics, Polish Academy of Sciences, Warsaw. Presented by K.Bor[redacted]

GRANAS, A.

A note on compact deformations in functional spaces. Bul Ac Pol mat 10 no.2:87-90 '62.

1. Institute of Mathematics, Polish Academy of Sciences, Warsaw. Presented by K.Borsuk.

GRANAS, A. (Zalesie Gorne)

The theory of compact vector fields and some of its applications to topology of functional spaces. Rozprawy matemat no.30:1-93 '62.

GRANAS, A.

A note on Schauder's theorem on invariance of domain. Bul Ac Pol mat 10 no.5:233-238 '62.

1. Institute of Mathematics, Polish Academy of Sciences, Warsaw. Presented by K.Borsuk.

GRANAS, P.

"Tasks of the hosiery industry in 1953." p. 49. (ODZIEŻ, Vol. 4, no. 3, Mar. 1953, Lodz, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

GRANAS, P.

"Rhythm in the fulfillment of plans is a precondition of socialist economy." p. 117. (OZIEZ, Vol. 4, no. 6, June 1953, Lodz, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

GRANAS, P.

"Analysis of the economic activity of the hosiery industry for the first five months of 1953." p. 157. (OZIEZ, Vol. 4, no. 8, August 1953, Lodz, Poland)

SO: Monthly List of East European Accessions, L. C., Vol. 3, No. 5, May 1954, Uncl.

GRANAS, P.

"Mistakes occuring in manufacturing stockings with Cotton's machines." p.226. (ODZIEZ, Vol. 5, No1 12, Dec. 1954. Lodz, Poland)

SO: Monthly List of East European Accessions. (EEAL). LC. Vol. 4, No. 4. April 1955. Uncl.

GRANAS, P.

"Basic tasks of the hosiery industry in 1954." p. 237. (Odziez, Vol. 4, no. 12, Dec 53, Lodz)

SO: Monthly List of East European Accessions, Vol 3 No 6 Library of Congress Jun 54 Uncl

GRANAS, P.

"Problem of Estimating the Quality of Production." p. 4, (ODZIEZ, Vol. 5, No. 1, Jan. 1954. Lodz, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

GRAMAS, P.

"Achievements and Tasks of Odziez", p. 24, (ODZIEZ, Vol. 6, No. 2, Feb. 1955, Lodz, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

GRANAS, P.

Following the Party-economic conference in the dosiery industry. p. 108

ODZIEZ

LODZ

Vo. 6, no. 6 June 1955

SOURCE: East European Accessions List (EEAL) LC Vol. 5 no. 3 March 1956

GRANAS, P.

GRANAS, P. At the threshold of the Five-year Plan. p. 1. Vol. 7, no. 1, Jan. 1956. ODZIEZ. Lodz, Poland.

SOURCE: East European Accessions List (EEAL) LC Vol. 5, No. 6 June 1956

GRANASZTOI, Gyorgy

"Two city foundations in Artois and the French Flanders."
Reviewed by Gyorgy Granasztoi. Epites kozleked tud kozl 7
no.1/2:220-222 '63.

1. "Epites- es Kozlekedestudomanyi Kozlemenyek" szerkeszto bizottsagi tagja.

GRANASZTOI, Pal, a muszaki tudomanyok kandidatusa

Up-to-date city plans. Magy tud 71 no.10:636-645 O '64.

1. Budapest City Construction Designing Enterprise, Budapest.

GRANAT, A. M.

Catalytic hydrogenation of doubly unsaturated compounds with a conjugated system of double bonds II Hydrogenation of isoprene in the presence of platinum, palladium and nickel B. K. Nefedov, M. Granat, V. [illegible]

Izvest. Akad. Nauk S.S.S.R. Otdel. Khim. Nauk 953, 670-7; cf. C.A. 48, 5008b.—Hydrogenation of isoprene over Ni, Pd, and Pt proceeds according to the 2nd scheme proposed by Lebedev, *et al* (cf. C.A. 19, 340); in the presence of Pt, a lesser selectivity of hydrogenation is observed than with Ni or Pd. In no case do the hydrogenation curves show the true course of hydrogenation insofar as the curve shape is concerned. The products of hydrogenation were sepd. in an efficient fractionation column and identified. After addn. of 1 mole H to isoprene over Pt black, the mixt. contains (in mole-%): $Me_2CHCH{:}CH_2$ 7.0, $MeEtC{:}CH_2$ 20.0, $Me_2C{:}CHMe$ 15.0, Me_2CHEt 26.0, and isoprene 26.0. Over Pd black the products in the same order are (in mole-%): 25.0, 30.0, 41.0, 2, 2 (after complete fractionation); over Raney Ni, 16, 40, 40, 2, 2. G. M. K.

SOV/65-8[illegible]-5-6/14

AUTHORS: Granat, A. M; Grushevenko, V. I; Pavlova, I. P; Sterkhova, L. N.

TITLE: Carbamide Deparaffination of Distillation Oils from Emba Petroleum. (Karbamidnaya deparafinizatsiya distillyatnykh masel iz Embenskikh neftey)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.5. pp. 34 - 42. (USSR).

ABSTRACT: The Yaroslavl' Plant im. Mendeleyev is processing various petroleums from the Emba Region. The preparation of distillate oils with a low solidification point is based on the processing of high quality petroleum (solidification points of different oils varying between -60 to - 40°C), or by the processing of other petroleums by using the depressor AZNII which lowers the solidification point of the oils, and at the same time impairs such characteristics as the colour, electrophysical properties, and ash content. Results of investigations on the carbamide deparaffination of different oils from Emba petroleums, carried out in the Research Department of the above-named plant, as well as the principal lay-out of the experimental - p i l o t plant, are discussed. Deparaffination was

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Carbamide Deparaffination of Distillation Oils from Emba Petroleum.

carried out with the aid of crystalline carbamide in the presence of an activator (ethyl alcohol); the experimental stage lasted for thirty minutes. Physico-chemical properties of the petroleums - Table 1. Results of the deparaffination, the quality of the distillates, and of the finished oils before and after deparaffination - Table 2. The oil MVI was prepared and satisfied the requirements of GOST 1805-51, and the transformer oil, prepared from the investigated petroleum, satisfied the requirements of GOST 982-56. Investigations are carried out at present on the effect of the carbamide deparaffination process on the stability of transformer oil according to the requirements of GOST 981-55. A 82-87% yield of deparaffinated oil was obtained. One type of petroleum was used for the preparation of a condenser oil according to GOST 5775-51, solidification point -55°C, which had very good electro-physical properties. A sample of deparaffinated oil weighing 100 kg, was prepared on the basis of results obtained during the investigations. Before the deparaffination, the solidification point was -5°C; after deparaffination it equalled - 47°C. The process was carried out for one hour; the

Carbamide Deparaffination of Distillation Oils from Embensk Petroleum.

product obtained was filtered under vacuum. This product satisfied all the requirements of GOST 5546-54 for Freon oil. Results of investigations on the influence of various factors on the carbamide deparaffination are discussed. Fig.1: dependence of the solidification point of the oil on the quantity of carbamide used; the influence of the activator on the solidification point of transformer oil - Table 3; influence of distilled water on the deparaffination of Freon oil - Table 4. The dependence of the solidification point of Freon oil on the quantity of activator - Fig.2, and the dependence of the solidification on the contact time - Fig.3. Results obtained during these investigations were used for planning a pilot plant, the lay-out of which is given in Fig.4. There are 4 Figures, 4 Tables, 8 References: 2 German, 6 Soviet.

ASSOCIATION: Yaroslavl' Oil Refinery im. Mendeleyev. (Yaroslavskiy nefteperera-batyvayushchiy zavod im. Mendeleyeva).

GRANAT, E.

In the geology faculty. Scientific student meeting. Vest.Mosk.un. 8 no.5: 145 My '53. (MLRA 6:8) (Geology)

L 00740-66 EWT(m)/EPT(c)/T BW/DJ

ACCESSION NR: AP5021990 UR/0286/65/000/014/0065/0065
665.4/.5

AUTHOR: Garzanov, G. Ye.; Vinner, G. G.; Maloletkov, Ye. K.; Bogdanov, Sh. K.; Sergiyenko, V. G.; Petyakina, Ye. I.; Selivanchik, Ya. V.; Vertlib, Ya. Ye.; Gusman, M. Ye.; Shamsa, F. Ya.; Smirnov, M. I.; Granat, A. M.; Bulanteeva, T. P.; Krylova, T. A.

TITLE: A method for producing hydraulic fluid. Class 23, No. 172947

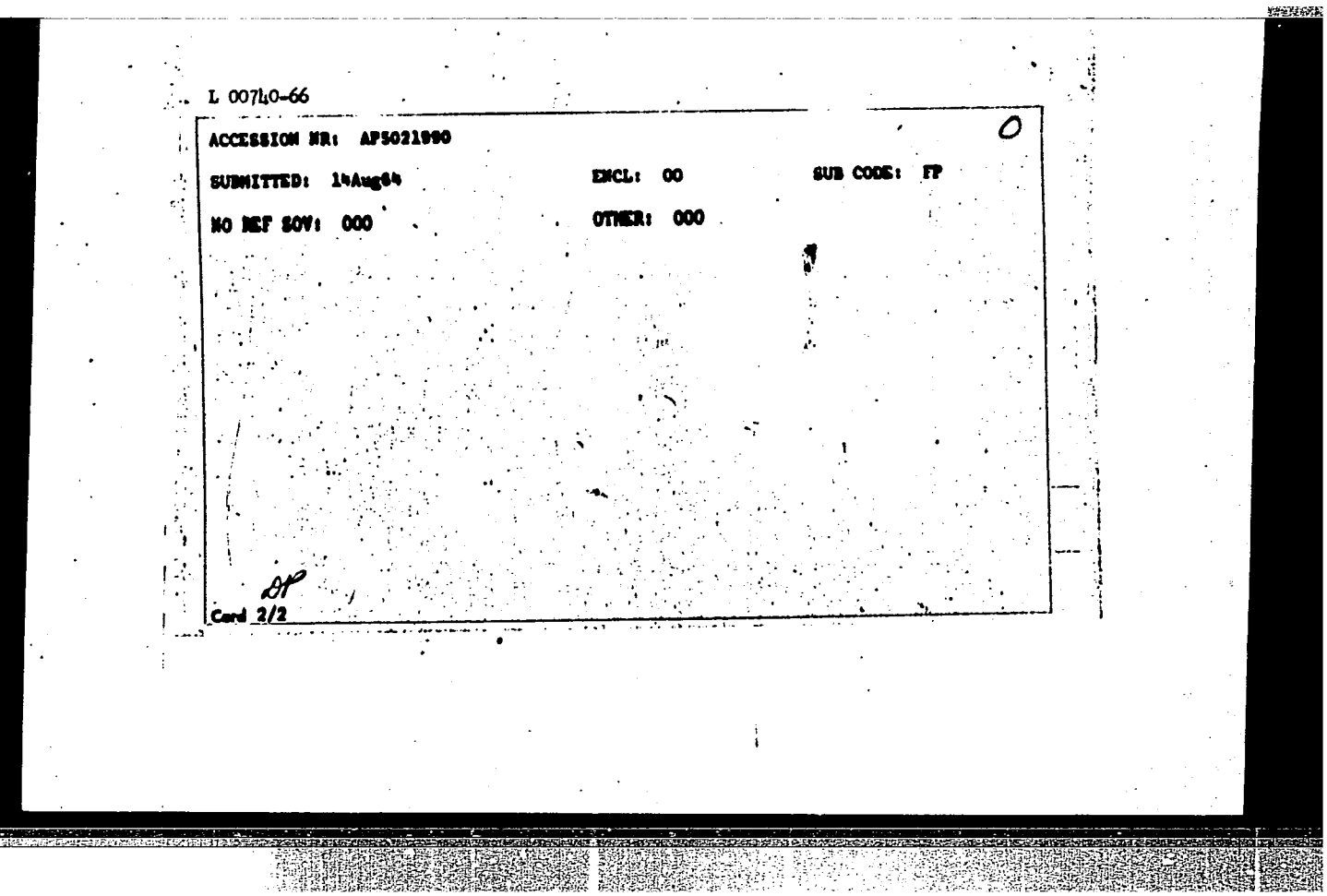
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 65

TOPIC TAGS: hydraulic fluid, petroleum product

ABSTRACT: This Author's Certificate introduces a method for producing hydraulic fluid based on petroleum products. The efficiency of the fluid at low temperatures is improved by using a velosite distillate with a flash point of 115-120°C and a viscosity of less than 2200 centistokes at -40°C.

ASSOCIATION: Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi (Scientific Research Institute for Organization, Mechanization and Technical Assistance)

Card 1/2



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ACCESSION NR: AP5021990 O

SUBMITTED: 14Aug64 ENCL: 00 SUB CODE: FP

NO REF SOV: 000 OTHER: 000

Card 2/2

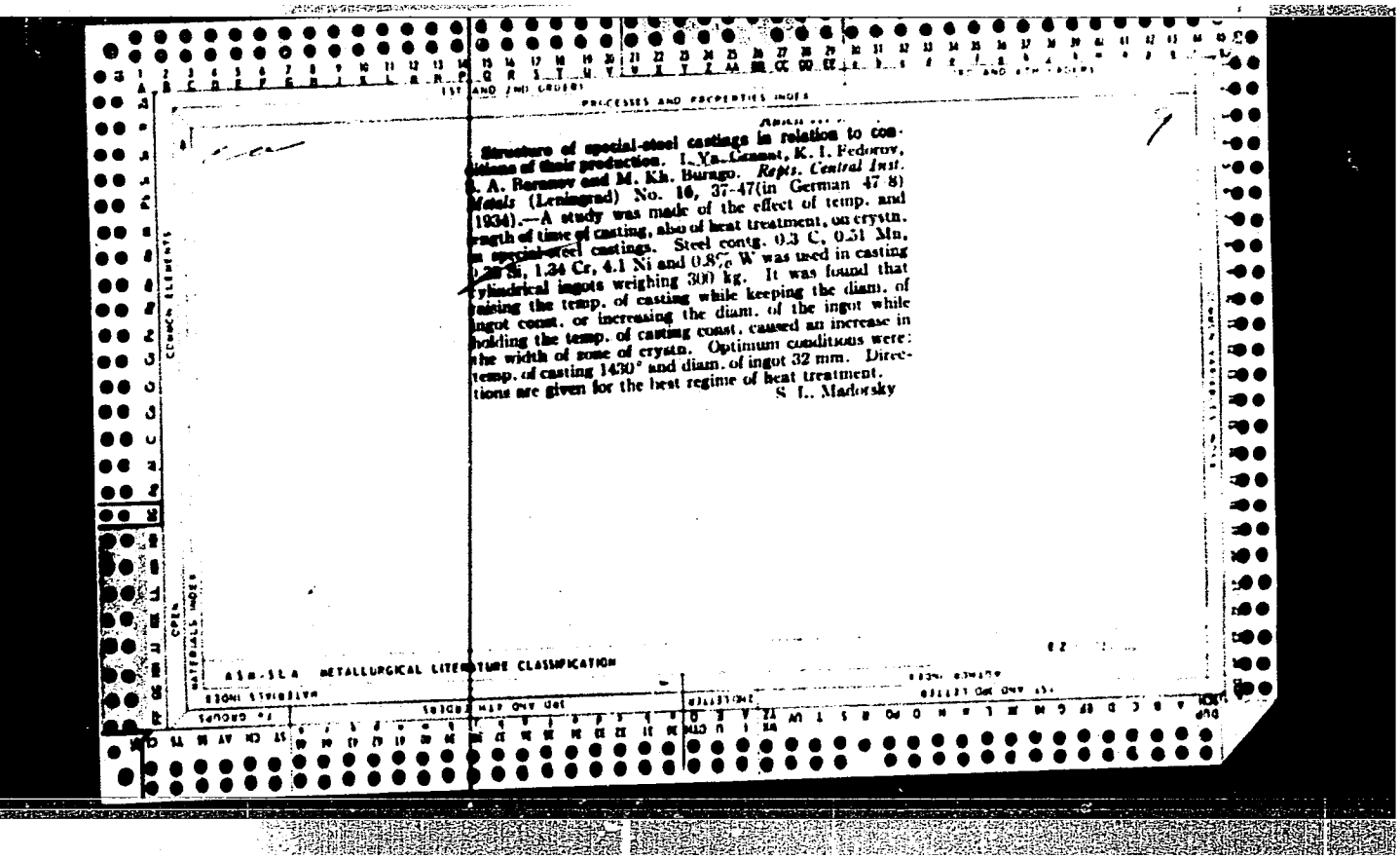
GRANAT, E.E.

GRANAT, E. E.

Tissue therapy in pediatrics. Pediatriia, Moskva No. 6, Nov.-Dec. 50. p. 33-7

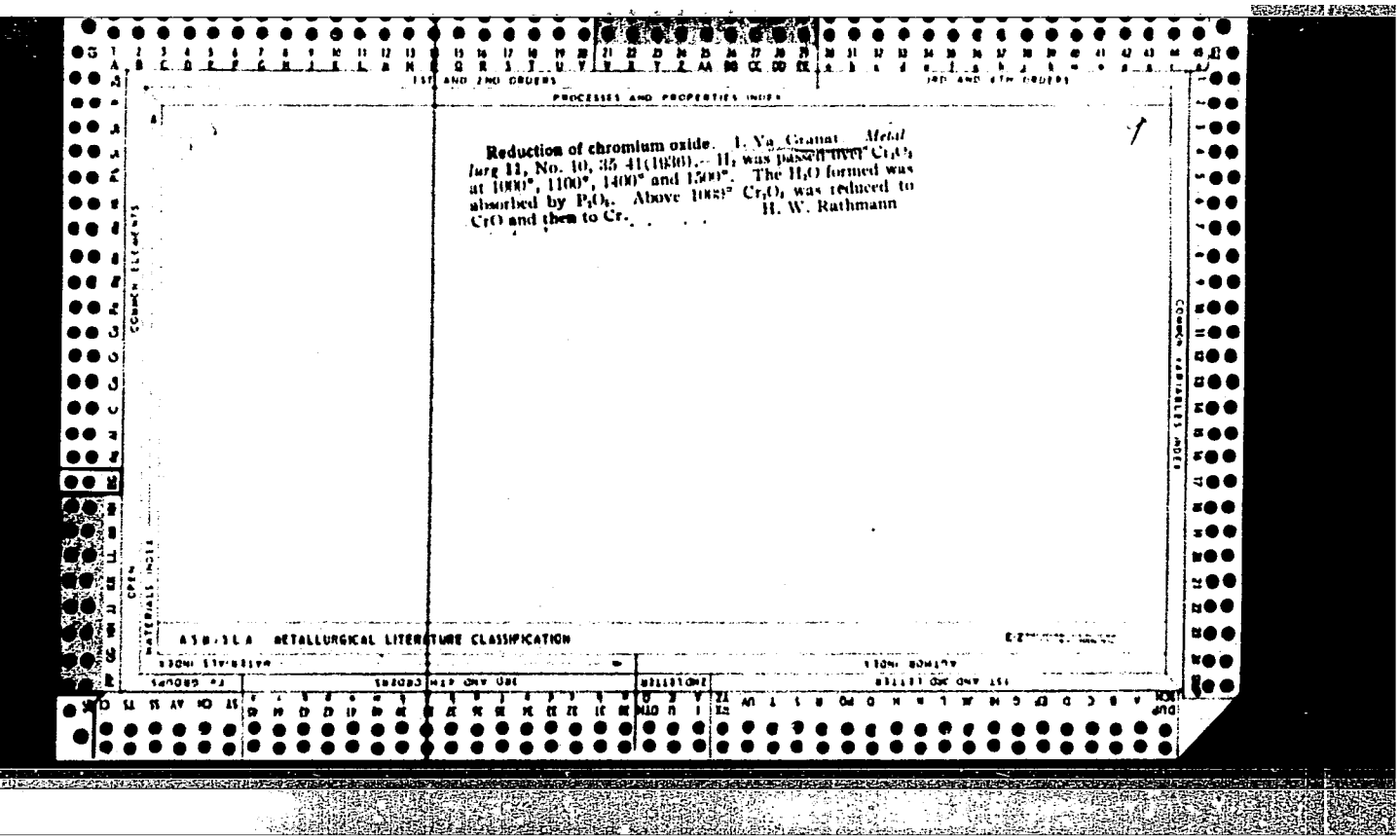
1. Of the Clinic for Children's Diseases (Director--Prof. Ye. Ye. Granat), Novosibirsk Institute for the Advanced Training of Physicians (Director--Prof. G. D. Zalesskiy).

CIML 20, 3, March 1951



Structure of special-steel castings in relation to conditions of their production. I. Ya. Gennat, K. I. Fedorov, I. A. Borunov and M. Kh. Burago. *Repts. Central Inst. Metals* (Leningrad) No. 10, 37-47(in German 47-8) (1934).—A study was made of the effect of temp. and length of time of casting, also of heat treatment, on crystn. in special-steel castings. Steel contg. 0.3 C, 0.31 Mn, 0.28 Si, 1.34 Cr, 4.1 Ni and 0.8% W was used in casting cylindrical ingots weighing 300 kg. It was found that raising the temp. of casting while keeping the diam. of ingot const. or increasing the diam. of the ingot while holding the temp. of casting const. caused an increase in the width of zone of crystn. Optimum conditions were: temp. of casting 1430° and diam. of ingot 32 mm. Directions are given for the best regime of heat treatment.

S. L. Madorsky



Reduction of chromium oxide. I. Ya. Granat *Metal lurg* 11, No. 10, 35-41(1956).— H_2 was passed over Cr_2O_3 at 1000°, 1100°, 1400° and 1500°. The H_2O formed was absorbed by P_2O_5. Above 1085° Cr_2O_3 was reduced to CrO and then to Cr. . . . .
H. W. Rathmann